REMARKS

The Office Action, mailed November 24, 2006, considered claims 1–36. Claims 18–36 were rejected under 35 U.S.C. § 101 as being directed toward non-statutory subject matter. Claims 1–9, 16, 18–27, 29, 30, 32, 35 and 36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Scott E. Hudson & John T. Stasko, *Animation Support in a User Interface Toolkit: Flexible, Robust, and Reusable Abstractions* (1993) (hereinafter Hudson). Claims 10–15, 17, 28, 31 and 34 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hudson in view of Milne, U.S. Patent No. 5,553,222 (filed Dec. 19, 1995) (hereinafter Milne).[1]

By this response, claims 1, 5–8, 18, 26–29, and 36 are amended such that claims 1–36 remain pending. Claims 1, 18, 26, 27, 29 and 36 are the independent claims which remain at issue. Support for the amendments may be found throughout the Specification, including the disclosure found within Specification ¶¶ 10–16 and 120–140.[2]

As reflected in the claims, the present invention is generally directed toward embodiments that include multiple-level graphics processing with animation interval generation where graphics processing is separated between a first and second component.

Claim 1 recites, for instance, in combination with all the elements of the claim, a system having a first component and a second component. The first component receives clock data and graphics data through an API and computes interval data based on clock data and events generated by an event generator. The second component, which receives the interval data from the first component, determines output based on the interval data such that the output is relative to the interval data and the current time.

Claim 18 recites a method corresponding to the system of claim 1, wherein it is recited how the first component receives clock data and generates at least two events using an event generator, as well as interval data based on clock data and interval data corresponding to time between the two events. The output, which is produced so that timing is relative to both the

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[1] Although the prior art status of the cited art is not being challenged at this time, Applicants reserve the right to challenge the prior art status of the cited art at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

[2] However, it should be noted that the present invention and claims as recited take support from the entire Specification. As such, no particular part of the Specification should be considered separately from the entirety of the Specification.

interval data and the current time, is provided to a second component which provides data to a graphics subsystem for display of graphics.

Claim 29 is directed to a similar method that recites a little more detail than the embodiment of claim 18. Claims 26, 27 and 36 are directed to computer program products that correspond to the recited methods.

It is noted that claims 18–36 were all rejected under 35 U.S.C. § 101 as being directed toward non-statutory subject matter.[3] Of these claims, claims 26–28 and 36 were rejected as comprising electromagnetic signals which were said not to be non-statutory subject matter.[4] Although Applicant generally disagrees with this rejection[5], it will be noted that claims 26, 27, and 36 have all been amended to clarify that the computer-readable media are "storage medium."

It was asserted in the last office action that claims 18–25 and 29–35 were rejected as being directed toward an abstract idea "because merely 'generating interval data' and 'causing output to be produced' are nothing more than thoughts or computations within a processor."[6] The Applicant respectfully disagrees and submits that the claims as recited were, indeed, directed toward statutory subject matter.[7] Nonetheless, the claims have been amended to clarify that the generated output or data is provided to a graphics subsystem, where it can be stored or displayed, for example.

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[3] Office Communication p. 2 (Nov. 24, 2006).
[4] Office Comm. p. 2.
[5] Applicants respectfully disagree that data signals sent over wired and wireless media do not meet the "useful, concrete, and tangible result" test set forth in *In re Alappat*, 33 F.3d 1526, 1544 (Fed. Cir. 1994) (cited by *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998)). Computer code recorded on magnetic media are electromagnetic signals which may be sensed by appropriate computer equipment and executed by appropriate computer processing units. So, too, is computer code conveyed by wireless means electromagnetic signals which may be sensed by appropriate computer equipment and executed by appropriate computer processing equipment. Wireless signals should be considered both "useful" and "tangible" under the test enunciated by *Alappat* and cited by *State Street Bank*. *See State Street Bank*, 149 F.3d at 1373 (citing *Alappat*, 33 F.3d at 1544). The foregoing argument notwithstanding and being mindful of the Interim Guidelines (which indicate a similar view towards wireless signals), the applicant has amended the relevant independent claims to remedy the Examiner's concern.
[6] Office Comm. p. 3.
[7] The Applicants submit that recent denial of certiorari by the Supreme Court in *Lab. Corp. of America Holdings v. Metabolite Lab's, Inc.* (2006) (letting stand a lower court ruling of validity for the claim:
"A method for detecting a deficiency of cobalamin or folate in warm-blooded animals comprising the steps of: assaying a body fluid for an elevated level of total homocysteine; and
correlating an elevated level of total homocysteine in said body fluid with a deficiency of cobalamin or folate.")
and the holding of the Federal Circuit in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998) would seem to indicate that the claims, as recited, were indeed properly statutory subject matter.

Claim 1 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hudson. However, Hudson fails to teach or suggest each and every element of claim 1, particularly as amended. For instance, Hudson does not teach or suggest a first component that receives clock data and graphics data from a program and wherein the first component comprises an event list generator and an interval generator or a second component that receives the interval data from the first component and determines an output based on the interval data and current time data, such that timing of the output is relative to both the interval data and the current time data. The Examiner has argued that Hudson teaches the second component "by teaching of 'low-level' systems that provide more direct access to the machine . . . ."[8] However, the Applicants point out that the reference in Hudson cited by the Examiner actually reads:

> "... *even if* better support becomes available or 'low-level' systems that provide more direct access to the machine are employed, there will always be cases where realtime goals cannot be met ..." Hudson p. 7, col. 2 § 4.

The above statement is merely a hypothetical conjecture – Hudson states that "even if . . . low-level systems . . . are employed, there will . . . be cases . . . where goals cannot be met"[9] – but it certainly does not enable the claimed second component to be practiced without undue experimentation.

The Examiner also argues that Hudson teaches output determined based upon interval data and current time data. However, Hudson clearly fails to teach or suggest that the interval generation mechanism is a component of the first component and that the intervals are computed based upon clock data received by the first component. It should also be noted that the "metered set of animation steps" cited by the Examiner[10] do not correspond to "interval data" but, in contrast, are discrete, instantaneous, steps which are to be displayed by a graphic object.

Furthermore, Hudson does not teach that events, used to generate interval data, are generated by the event list generator of the first component. Finally, the Examiner concedes that Hudson does not teach an interval generation mechanism[11] but the Examiner states that Hudson suggests such an element by disclosing that "an interval can be expressed as two specific . . . times" and by teaching "[b]oth start and end values are passed because each step corresponds . .

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[8] Office Comm. p. 4.
[9] Hudson p. 7 § 4 ¶ 1.
[10] Office Comm. p. 4.
[11] Office Comm. p. 5.

. to a finite interval of time."[12] The Applicants point out that the "expression" of an interval is not correctly equated with the "generation" of an interval by an interval generator. And, more particularly, simply because Hudson can express an interval does not imply or suggest that Hudson generates intervals that are computed based upon clock data received by the first component and which were generated as a relative determination of time between a first event and a second event *that were generated by an event list generator*. In view of the above discussion, the Applicants submit that Hudson fails to teach or suggest each and every element of claim 1, and it is thereby in condition for allowance. Accordingly, the Applicants respectfully request the Examiner to allow the claim as now recited.

Claim 18 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hudson using the same rationale as claim 1. As such, the above discussion applies to claim 18. Additionally, claim 18 has been amended similarly to that of claim 1. Correspondingly and in view of the above discussion, Applicant submits that claim 18 is in condition for allowance and respectfully requests the Examiner to issue its allowance.

Claim 27 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hudson. Claim 27 has now been amended to recite a method in place of the data structure which had been previously presented. Applicant submits that the cited prior art fails to teach or suggest each and every element of the method of claim 27, for at least the same reasons presented above, with regard to claim 1.

Claim 29 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hudson with the Examiner citing the same reasons and rationale as that for claim 1.[13] As such, the discussion of claim 1 applies equally to this claim and claim 29 has been amended to more explicitly recite the responsibilities of the first and second components. Additionally, the Examiner concedes that Hudson fails to teach "computing an interval list" but argues that Hudson suggests such a limitation.[14] Importantly, Hudson does not suggest such an interval list being computed. The cited portion of Hudson (and, indeed, its entirety) discloses that a translation may be made from "time to space."[15] Hudson fails to teach or suggest, however, that an interval list is prepared by a first component which is then processed by a second component for output to a graphics

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[12] Office Comm. p. 5.
[13] Office Comm. p. 11.
[14] Office Comm. p. 11.
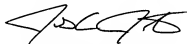[15] Hudson pp. 8–9; *see also, generally,* Hudson.

subsystem. Furthermore, Claim 29 has been amended to alleviate the Examiner's concerns of statutory subject matter. Applicants submit that the claim as now recited is in condition for allowance and, accordingly, respectfully request the Examiner to issue its allowance.

In view of the foregoing, Applicants respectfully submit that the other rejections to the independent and dependent claims are now moot and do not, therefore, need to be addressed individually at this time. It will be appreciated, however, that this should not be construed as Applicants acquiescing to any of the purported teachings or assertions made in the last action regarding the cited art or the pending application, including any official notice. Instead, Applicants reserve the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any Official Notice, explicitly or implicitly, Applicants specifically request that the Examiner provide references supporting the teachings officially noticed, as well as the required motivation or suggestion to combine the relied upon notice with the other art of record.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 16th day of February, 2007.

Respectfully submitted,

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